

**AN ITEM ANALYSIS OF THE ENGLISH SUMMATIVE TEST ON  
SMPN 1 SURAKARTA 2017/2018 ACADEMIC YEAR**



**Submitted as a Partial Fulfilment of the Requirements  
for Getting Bachelor Degree of Education  
in English Department**

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Surakarta, 18 September 2018

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## **AN ITEM ANALYSIS OF THE ENGLISH SUMMATIVE TEST ON SMPN 1 SURAKARTA 2017/2018 ACADEMIC YEAR**

### **Abstrak**

Evaluasi memiliki peran penting dalam beberapa kegiatan terutama dalam hal pendidikan. Evaluasi memberi informasi tentang seberapa berhasil upaya telah dilakukan, informasi ini akan sangat berguna untuk melakukan perbaikan di masa depan. Salah satunya instrumen evaluasi di bidang pendidikan adalah tes. Sebuah tes seharusnya Diatur dengan baik sehingga dapat digunakan secara efektif. Untuk dikatakan tes yang bagus, itu harus memenuhi karakteristik tes yang baik, ini adalah; validitas, reliabilitas, praktis, tingkat kesulitan, kekuatan diskriminasi dan terutama untuk pilihan ganda mengujinya memiliki pengalih perhatian yang efektif untuk setiap item. Untuk mengetahui kualitas tes, harus melalui analisis yaitu item analisis. Analisis item memiliki beberapa manfaat. Pertama, ini memberikan informasi yang berguna untuk diskusi kelas soal. Kedua, menyediakan data untuk membantu para siswa meningkatkan pembelajaran mereka. Ketiga, ini memberikan wawasan dan keterampilan yang mengarah pada persiapan tes yang lebih baik pada kesempatan mendatang. Berdasarkan pertanyaan dari penelitian, tujuan dari penelitian ini adalah untuk mengetahui kualitas item tes sumatif bahasa Inggris pada semester pertama dari siswa kelas delapan di SMPN1 Surakarta pada tahun akademik 201/2018. Dari penelitian ini, dapat diketahui mana salah satu item tes yang harus dipelihara, direvisi atau dibuang.

**Kata Kunci :** Analisis Item, Uji Sumatif, validitas, reliabilitas, Tingkat kesulitan, Kekuatan Diskriminasi, Efektivitas Distraktor.

### **Abstract**

Evaluation has an important role in some activities especially in term of education. Evaluation gives information about how successful an effort has been, this information will be very useful to make improvement in the future. One of the instruments of the evaluation in education field is a test. A test is supposed to be well arranged so that it can be used effectively. To be said a good test, it has to fulfill the characteristic of the good test, these are; validity, reliability, practically, level of difficulty, discrimination power and especially for multiple choice test it has effective distractor for each items. To know the quality of test, it should go through an analysis namely item analysis. Item analysis has several benefits. First, it provides useful information for class discussion of test. Second, it provides data for helping the students improve their learning. Third, it provides insights and skills which lead to the preparation of better tests on future occasions Based on the question of the study, the objective of this research is to find out the quality of the English summative test items at the first semester of the eight grade students on SMPN1 Surakarta in 201/2018 academic year. From this research, it can be known which one of the test items should be maintained, revised or discarded.

**Keyword:** Item Analysis, Summative test, validity, reliability, Level of difficulty, Discrimination Power, Effectiveness of Distractor

## **1. INTRODUCTION**

Communication is the most important thing that human needs to stay connected to other people in the world. Communication is the activity of conveying information through the exchange of thoughts, messages, or information, as by speech, visuals, signals, writing, or behavior. In general, communication is done verbally and it can be understood by both of the communicator. To make the communication connected people need the component of communication. The most commonly component of communication is language.

Language is one of the most important things in communication. Language is used in every aspect of life. Human use it in any way possible in their life, although they live in different places, have different environment and make different interactions.

In Indonesia, English is the first foreign language. In formal education, English is learned from the elementary school up to the university. Learning English is not easy, because it is not Indonesia daily language. Most students get difficulties in learning English. That is why, in teaching and learning process, the English teachers should give the correct instruction to all students so that students can master English well.

In achievement teaching and learning objectives, evaluation is very important. According to Ground and Linn, evaluation is “The systematic process of collection, analyzing and interpreting information to determine the extent to which pupils are achieving instructional objectives.” It means that evaluation is an organized process which is done continuously in order to know how the teaching and learning objectives have already achieved. To evaluate the students, the teachers should give a test.

## **2. METHOD**

Test is a tool of evaluation which has important role to measure the teaching learning process. As stated by Hughes “A test is intended to measure students’ achievement and the degree of the success of the teaching and learning program”. Through testing, the teachers can measure students’ knowledge or ability, they allow students to see their own progress and allow teacher to make adjustment to

their instruction on daily basis. In a simple term, a test is a method of measuring person ability, knowledge, or performance in teaching learning activities and an achievement test is a systematic procedure for determining the amount of student has learned.

Therefore, in making a test the teachers should have some criteria of good test. Haris states, "All good tests possess three qualities: validity, reliability, and practicality. It means that a test can be good if it has three qualities: validity, reliability and practicality.

To know the quality of the tests, the test items should be analyzed. The test item should also be prepared well, because the test result will be influenced by the quality of the test. The quality of test is influenced by the quality of each item. The teacher should focus on the quality of the test items, so it is very important for the teacher to do the item analysis. Because, by analyzing the item, the teacher can identify the quality of each item, find out which items appropriate with criteria, which items must be removed, and which items should be revised.

Item analysis is a significant and necessary step that has to be done in the preparation of a good test. It provides information about how well each item in the test functioned. It is important for each school to conduct the item analysis while administering a test, especially in administering a multiple choice test.

There is countless study that discussion about an item analysis of the English summative test as study conducted by Amalina Shomami (2014). The research design used in this study was Content Analysis Research. The respondent of this study are 161 pupils. The writer chooses the top 27% for the upper group and top 27% for the lower group. The result of this study showed there are 6 (15 %) acceptable items to meet the criteria of difficulty index, one item (2.5%) with too difficult status and there are 33 (82.5%) unacceptable items. Whereas for discriminating power index, the writer found there are 23 (57.5%) poor items, 1 (2.5%) item has negative result to the point have to be discard, and 16 (40%) acceptable items. For the distractor efficiency, the writer found there are 166 (83%) distracters with in-effective distractor. In conclusion, English odd

summative test for second grade of SMAN 6 Depok did not meet the criteria of effective and acceptable test.

Munadliroh, Siti. 2014. "Items Analysis on the Students' Score of the English Summative Test (Descriptive Study of the Tenth Grade Students of SMK N 3 Salatiga in the Academic Year of 2013/2014)". This research can be used an input for the readers; especially for the English teachers, the headmaster, and all people who are involved and responsible in developing good quality of test. The objective of this research was to measure and find out the difficulty level and discrimination index on items of English summative test score of the tenth grade students at SMK N 3 Salatiga in the academic years of 2013/2014. Type of this research was descriptive study. This research was compiled in quantitative method. It was applied purposive sampling technique. The total number of the sample was three classes which were 102 students. The data of this study was taken from observation and documentation which used to obtain the school data like students' name and general information. The result of this research were as follows, based on the data of difficulty index, there were 21 questions (42%) that placed in the normal position that included to the criteria of moderate question. In the contrary, there were 27 questions (54%) that included to the criteria of easy question and there were 2 questions (4%) that included to the criteria of hard question. Based on the data of discrimination index, there were 24 questions (42%) were in good criteria of discrimination index. Then 17 questions (34%) were in satisfactory criteria of discrimination index. In contrary, the writer found 9 questions (18%) items that were in the poor criteria. It were rejected either due to the difficulty level or discrimination index. It could be concluded that there were 9 questions that must be removed or revised to be good questions.

MuspiraHumaerah2015 : Item Analysis of English Summative Test for Second Grade Student of MA 2 TaneteBulukumpaThe problem statement of this research is how is the validity, realibility, and difficulty level of English summative test for second grade student of MAN 1 TaneteBulukumba. In addition, this research aims to find out the validity, realibility, and difficulty level of English summative test for second grade student of MAN taneteBulukumba.



The test was tried out to the students and then the researcher analyzed the validity, reliability, and difficulty level of each item of the test. Based on the whole analysis of test items, it can be concluded that first, the English summative test for second grade student of MAN 1 TaneteBulukumba contains six valid items and four invalid items, the valid items of the test were items number 4, 5, 6, 7, 9, and 10. On the contrary the invalid items were items number 1, 2, 3, and 8. second, the English summative test for second grade student of MAN 1 TaneteBulukumba is reliable since the reliability index was higher than the table value of critical of product moment. Third, the English summative test for second grade student of MAN 1 TaneteBulukumba contains one difficult item, one too easy item, four medium items, and four easy items. the medium items are question number 3, 4, 7, 8, and 9. The easy items are number 2, 5, 6, and 9. The too easy item is number 1. In addition the difficult item is the question number 10

Bernasela, BambangWijaya, DewiNovita2012 , AN ANALYSIS ON ENGLISH SUMMATIVE TEST ITEMS. The purposes of this research are to provide information about the quality of English summative test items, measuring the validity, reliability, level difficulty, discriminating power and distracters of the test items, identifying the appropriate test items for the eleventh grade student vocational school SMKN 2Singakawang in academic years .2013/2012 The method of this research is descriptive study. The data were taken from the summative test and students' answer sheets. The summative test consists of 50 items in form of multiple choices. Based on the whole analysis of test items, it can be concluded that there are 33 good test items which still can be used to the next summative test, 6 test items should be discarded or changed by the other test item and 11 test items should be revised.

Rusma Setiyana , ANALYSIS OF SUMMATIVE TESTS FOR ENGLISH . This study aimed to analyze the quality of summative tests for English at MAN Boarding School Meulaboh I in terms of validity, reliability, difficulty index, discrimination index, and the effectiveness of distractors. Content analysis was employed in this study. Two techniques were carried out to collect the data, namely a checklist and document analysis. The data from the checklist was

analyzed using statistical procedures and the data from the document analysis was analyzed using Anates software version .4The results showed that the validity of the English summative tests at MAN Meulaboh I was on average either sufficient or poor since the percentages were below .%72Secondly, the tests had a high and consistent degree of reliability. The index of difficulty was above .%70Thirdly, %60 of the difficulty index in the test of the first grade, %48 in the second grade, and %8 in the third grade test were accepted. Fourthly, more than half of the discrimination index was good. In detail, good in the discrimination index of the test was %76 in the first grade, %56 in the second grade and %72 in the third grade. Finally, the effectiveness of distractors in the English summative test in the first grade was %53, in the second grade was %67 and in the third grade was .%50 To count the difficulty level, the writer adopted the formula from Heaton:

$$FV = \frac{Correct + correctL}{2n}$$

**FV** = Facility value or Difficulty Level.

**U** = Sum of students from upper group who answer correctly.

**L** = Sum of students from lower group who answer correctly.

**2n** = Total number of sample in one group

According to Arikunto'sbook,to measure the difficulty level the teacher used those categories. If facility value is:

<b>0.00 - 0.30</b>	<b>= difficult</b>
<b>0.31 – 0.71</b>	<b>= medium</b>
<b>0.71 – 1.00</b>	<b>= easy</b>

In this research, to get more detail category, the writer divided the category to be 5 levels, which are, if the facility value is:

<b>0.00 to 0.20</b>	<b>: very difficult</b>
<b>0.21 to 0.40</b>	<b>: difficult</b>
<b>0.41 to 0.60</b>	<b>: medium</b>
<b>0.61 to 0.80</b>	<b>: easy</b>

**0.81 to 1.00 : very easy**

The writer adopted the following formula from Heaton to measure the discrimination power:

$$D = \frac{\text{correct}U - \text{correct}L}{n}$$

**D = Discriminating power**

**U = Sum of students from upper group who answer correctly**

**L = Sum of students from lower group who answer correctly**

**n = Total number of sample in one group**

To know the criteria of discriminating power of each items, the write used the measurement level referred to Arikunto's book. If the discriminating index is:

**0.00 – 0.20 = poor**

**0.21 – 0.40 = satisfactory**

**0.41 – 0.70 = good**

**0.71 – 1.00 = excellent**

**If D value is negative, so the item is very poor or discarded.**

### **3. FINDING AND DISCUSSION**

The use of summative test formula was to check the significant difference of scores achieved by students of the first semester of eight grade of SMP N 1 Surakarta 2017/ 2018 academic year. The statistical analysis the writer can decide which students belong to the upper group or lower group. And from the statistic calculation showed that the test questions given to students include very difficult, difficult, medium, easy or very easy questions.

Based on the above tables showed that the percentages of the students in upper group are 25% (18 students) and students in lower group are also 25% (18 students) too. From the data of upper and lower group, the writer can calculate the difficulty level and discriminating power.

To calculate the difficulty level, the writer adopted the formula from J.B. Heaton that interpreted the difficulty level below very difficult, difficult, medium, easy and very easy questions. Based on the above tables showed that the percentages are:

Very Difficult	: 0%
Difficult	: 5%
Medium	: 15%
Easy	: 30%
Very Easy	: 50%

To know the criteria of discriminating power of each items, the writer used the measurement level referred to Arikunto's book that decided into excellent, good, satisfactory, poor and very poor. Based on the above tables showed that the percentages are:

Excellent	: 0%
Good	: 1%
Satisfactory	: 22%
Poor	: 75%
Very poor	: 2%

Based on the previous data, there are 19 items that should be revised. Therefore, the writer should make some alternative revisions of the weak items.

Derived from the data analysis the summative test from the writer that given to the students is not difficult enough but there are some weak items that should be revised.

By giving test to the student, the teacher can measure student ability and to what extent students can understand each lesson, whether students really understand or even experience difficulties. This is convenient with the opinion of Brown that stated, "A test is method of measuring a person's ability, knowledge, or performance in a given domain." And suitable with the opinion of Heaton that also stated, "Test may be constructed primarily as devices to reinforce learning and to motivate the student or primarily as a means of assessing the student's

performance in the language.” In addition, the test is not only to measure students’ learning competence, but also to measure the success of teaching program.

Based on the data above, the teacher knows the ability of students during the learning, so the teacher can qualify which students belong to upper group and lower group. Therefore, the test helps teacher to collect information about ability, knowledge, intelligence, performance of students’ learning and to measure the accomplishment of teaching program.

In this study, the writer focuses on summative test. Summative test is used to assess student’s knowledge or ability at the end of instructional program such as semester final examination and national final examination. The teacher gives a summative test to the student to measure student’s ability and for giving grades or decision about how well the students’ achievement the knowledge based on the instruction goals. This is compatible with statement of Brown that stated, “Summative test, which provides assessment at the end of a course or program, do not need to offer much in the way of wash back. And appropriate with other statement from Cohen and Marrison that stated, “Summative testing is the test given at the end of the program, and is designed to measure achievement outcomes or mastery”. Hence, the teacher can know and assess which students are capable and having difficulty in learning.

Besides the test, the teacher should know the difficulty level of the test, difficulty level index will show the statistic of all students’ response to the every single test item given. Based on the data above showed that the test was given by the teacher is not difficult enough. From the difficulty lever the writer can get information of the quality of the test items, whether it is good item or poor item.

To determine the difficulty level of test and quality of test, the teacher use item analysis to specify the test. This is appropriate with opinion by Nikto on his book “Item analysis refers to the process of collecting, summarizing and using information about individual test items, especially information about pupil’s responses to items”. Therefore, the teacher knows the quality of the test item and the effectiveness of the teaching instruction.

#### 4. CONCLUSION

The writer concluded that item analysis is needed to examine the items have been tested to the student so that the teacher can find out which items should be maintained, revised and rejected. Furthermore, the teacher can increase the quality of test by revising some weakness items in item analysis.

Based on the analysis data of the English summative test at the first semester of Eight grade students on SMPN 1 Surakarta 2017/2018 academic year, the writer found that most items in the test are categorized as easy items. From 50 multiple choice items, there are 17 (50%) Very easy items, 15 (30%) very easy items, 10 (15%) medium items, 5 (5%) difficult items and 0 (0%) very difficult items.

By calculating the discriminating power, the writer can find out the items which are excellent, good, satisfactory, poor and very poor. In this research, the writer found that most of the items in this summative test are good and satisfactory. There are 0 (0%) excellent items should be retained, 1 (1%) good items should be retained, 16 (22%) both items should be retained satisfactory, 31 (75%) poor items that should be revised, and 2 (2%) very poor items should be discard.

Based on the analysis data, the writer found some weaknesses on several items. Most of the weaknesses are mainly caused by the weaknesses of the item distracters to distract some students in lower group. The other weaknesses are the items which too easy or too difficult, the items which too easy make all students in upper and lower group can found the correct answer easily. Whereas, the items which too difficult make the students both group difficult to find the right answer. Furthermore, the difficult of students is caused by ambiguous question, or complicated vocabulary.

The writer would like to give some suggestion for the English teacher of SMPN 1 Surakarta as the test maker. The suggestions are as follows:

1. In making a good test, the teacher as the test maker is required to typewrite the text and items properly in order to prevent an ambiguity for the students while taking the test.

2. the teacher as a test maker should give a clear and understandable items in order to make the students get better comprehension about the items.
3. The teachers should do the item analysis after administering the test. By analyzing the item, the teacher can measure the quality and the effectiveness the test items in measuring the students' ability and competence.

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